Docket No. R.306615

Preliminary Amdt.

**AMENDMENTS TO THE CLAIMS:** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

**Listing of Claims:** 

Claims 1-10. (Canceled)

11. (New) A valve for a fuel injection system, the valve comprising

a valve seat embodied in a valve housing,

a valve member movable in the valve housing and having a sealing face that when the

valve is closed rests sealingly against the valve seat and when the valve is open, together with

the valve seat, defines a valve gap through which fuel flows,

an encompassing hollow throat formed on the valve member and disposed in the flow

direction immediately downstream of the sealing face, and

an encompassing cross-sectional thickening of the valve member adjoining the hollow

throat.

12. (New) The valve in accordance with claim 11, further comprising an encompassing edge

between the hollow throat and the cross-sectional thickening, at which edge the outer

circumferential surface portions of the hollow throat and of the cross-sectional thickening

adjoin one another and meet at an angle.

Page 7 of 12

Docket No. R.306615

Preliminary Amdt.

13. (New) The valve in accordance with claim 12, wherein the circumferential surface

portions of the valve member meet at the edge at a reflex angle.

14. (New) The valve in accordance with claim 12, wherein the outer circumferential surface

portion adjoining the edge on the side toward the cross-sectional thickening, is oriented

essentially parallel to a center axis of the valve member.

15. (New) The valve in accordance with claim 13, wherein the outer circumferential surface

portion adjoining the edge on the side toward the cross-sectional thickening, is oriented

essentially parallel to a center axis of the valve member.

16. (New) The valve in accordance with claim 12, wherein the circumferential surface

portion adjoining the edge on the side toward the hollow throat, is inclined at an angle of

between 20° and 60° relative to a center axis of the valve member.

17. (New) The valve in accordance with claim 14, wherein the circumferential surface

portion adjoining the edge on the side toward the hollow throat, is inclined at an angle of

between 20° and 60° relative to a center axis of the valve member.

18. (New) The valve in accordance with claim 11, wherein a radius of curvature of the

hollow throat is greater than 0.2 mm.

Page 8 of 12

Docket No. R.306615

Preliminary Amdt.

19. (New) The valve in accordance with claim 12, wherein a radius of curvature of the

hollow throat is greater than 0.2 mm.

20. (New) The valve in accordance with claim 13, wherein a radius of curvature of the

hollow throat is greater than 0.2 mm.

21. (New) The valve in accordance with claim 14, wherein a radius of curvature of the

hollow throat is greater than 0.2 mm.

22. (New) The valve in accordance with claim 16, wherein a radius of curvature of the

hollow throat is greater than 0.2 mm.

23. (New) The valve in accordance with claim 11, wherein the hollow throat and the sealing

face merge smoothly with one another.

24. (New) The valve in accordance with claim 13, wherein the hollow throat and the sealing

face merge smoothly with one another.

25. (New) The valve in accordance with claim 14, wherein the hollow throat and the sealing

face merge smoothly with one another.

Page 9 of 12

Docket No. R.306615 Preliminary Amdt.

26. (New) The valve in accordance with claim 16, wherein the hollow throat and the sealing

face merge smoothly with one another.

27. (New) The valve in accordance with claim 11, wherein the cross section of the valve

member tapers downstream of the cross-sectional thickening in terms the flow direction.

28. (New) The valve in accordance with claim 12, wherein the cross section of the valve

member tapers downstream of the cross-sectional thickening in terms the flow direction.

29. (New) The valve in accordance with claim 11, wherein an outer circumferential surface

of the valve member is ground down, at least in the region of the sealing face and of the

hollow throat, but not in the region of the cross-sectional thickening.

30. (New) A fuel injection pump, comprising by a valve in accordance with claim 11.

Page 10 of 12